

**Amendments to the Drawings:**

The drawing sheets attached in connection with the above-identified application containing Figures 1, 2a, and 2b are being presented as drawing sheets to be substituted for the previously submitted drawing sheets. Figures 1, 2a, and 2b have been amended. Appended to this amendment is an annotated copy of the previous drawing sheets which have been marked to show the changes presented in the replacement sheets.

The specific changes which have been made to Figure 1 are: (1) reference character "10a" located near "R4" has been changed to "10b"; (2) reference character "10b" located near "R3" has been changed to "8b"; (3) reference character "6a" located near "R3" has been changed to "6c"; and (4) the three occurrences of reference character "Q" have been changed to "QS".

The specific changes which have been made to Figure 2a are the four occurrences of reference character "Q" have been changed to "QS".

The specific changes which have been made to Figure 2b are the four occurrences of reference character "Q" have been changed to "QS".

**REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. After amending the claims as set forth above, claims 15-31 are now pending in this application.

Applicant wishes to thank the Examiner for the careful consideration given to the claims.

The specification and drawings have been amended to correct typographical and grammatical errors as well as providing headings.

**Claim objections**

Claim 1 is objected to because of a minor informality. Claim 1 has been canceled, which renders the objection moot. For at least this reason, favorable reconsideration of the objection is respectfully requested.

**Prior art rejections based on Andersson**

Claims 1-3, 5-8, and 10-12 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by WO 01/67021 ("Andersson"). Claims 4, 9, and 13-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Andersson. Claims 1-14 have been canceled, which renders the rejections of these claims moot. For at least these reasons, favorable reconsideration of the rejections is respectfully requested.

**Allowability of claims 15-28**

Claim 15 recites, among other things, a heat exchanger comprising several tray-shaped plates, which are placed on top of one another, are sealed together on their peripheral edges, and are provided with passages. Continuous flow channels are each formed from the passages that lie essentially above one another; wherein each flow channel traverses the plates. Flow channels lying adjacent to one another are traversed by different media from an admission side to a discharge side. Each flow channel has essentially elongate cross sections at the admission and discharge sides, each having a length L, a width B, and a length to width ratio L/B of between 1.5 and 12. Andersson does not teach or suggest this combination of features.

For example, Andersson does not teach or suggest that each flow channel has an elongate cross section at admission and discharge sides because all the embodiments show

ports that are circular, such as ports 12-13 in Fig. 1, ports 121-124 in Fig. 6, and ports 221-224 in Fig. 7.

Also, Andersson does not teach or suggest the claimed length to width ratio of between 1.5 and 12. It is asserted that Figs. 1 and 6-7 “appear to meet the specified length to width ratio.” (Paragraph 6 of the Office Action.) However, reliance on “apparent” dimensions from the drawing is improper because, according to MPEP 2125, “[w]hen the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value. See *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000).” In this case, there is nothing to indicate that the drawings of Andersson are drawn to scale and the length to width ratio (or length and width dimensions) are not specified. Thus Andersson does not teach or suggest that the length to width ratio is between 1.5 and 12.

Furthermore, it is asserted that “it would have been obvious...to use any desired length to width ratio for the passages to be determined by the intended use of the device.” (Paragraph 6 of the Office Action.) It is noted that the Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007) has not removed the requirement that the prior art reference (or references when combined) must teach or suggest all the claim limitations. Indeed, *KSR* emphasized cases where all features are known. Furthermore, the exemplary rationales listed in MPEP 2143 suggests that all elements (when the references are combined) need to be known in the art to support a conclusion of obviousness. Thus, the PTO is not relieved of its responsibility of finding prior art teaching or suggesting all the features of the claimed invention to establish a prima facie case of obviousness. The assertion that “it would have been obvious...to use any desired length to width ratio for the passages to be determined by the intended use of the device” is no substitute for finding prior art for establishing the claimed length to width ratio in the prior art and its use along with the other features of claim 15. Accordingly, claim 15 is allowable over the prior art.

Claims 16-30 depend from and contain all the features of claim 15, and are allowable for the same reasons as claim 15, without regard to the further patentable features contained therein.

Claim 31 recites, among other things, a plate for a heat exchanger, comprising a plurality of passages. Two adjacent passages comprises parts of separate flow passages in the heat exchanger that are traversed by different media, wherein each passage has essentially elongate cross-sections at admission and discharge sides. Each elongate cross section has a

length L, a width B, and a length to width ratio L/B of between 1.5 and 12. As previously mentioned, Andersson does not teach or suggest each passage having essentially elongate cross sections at admission and discharge sides or a length to width ratio L/B of between 1.5 and 12. Thus, claim 31 is allowable over the prior art.

For at least these reasons, allowance of claims 15-31 is respectfully requested.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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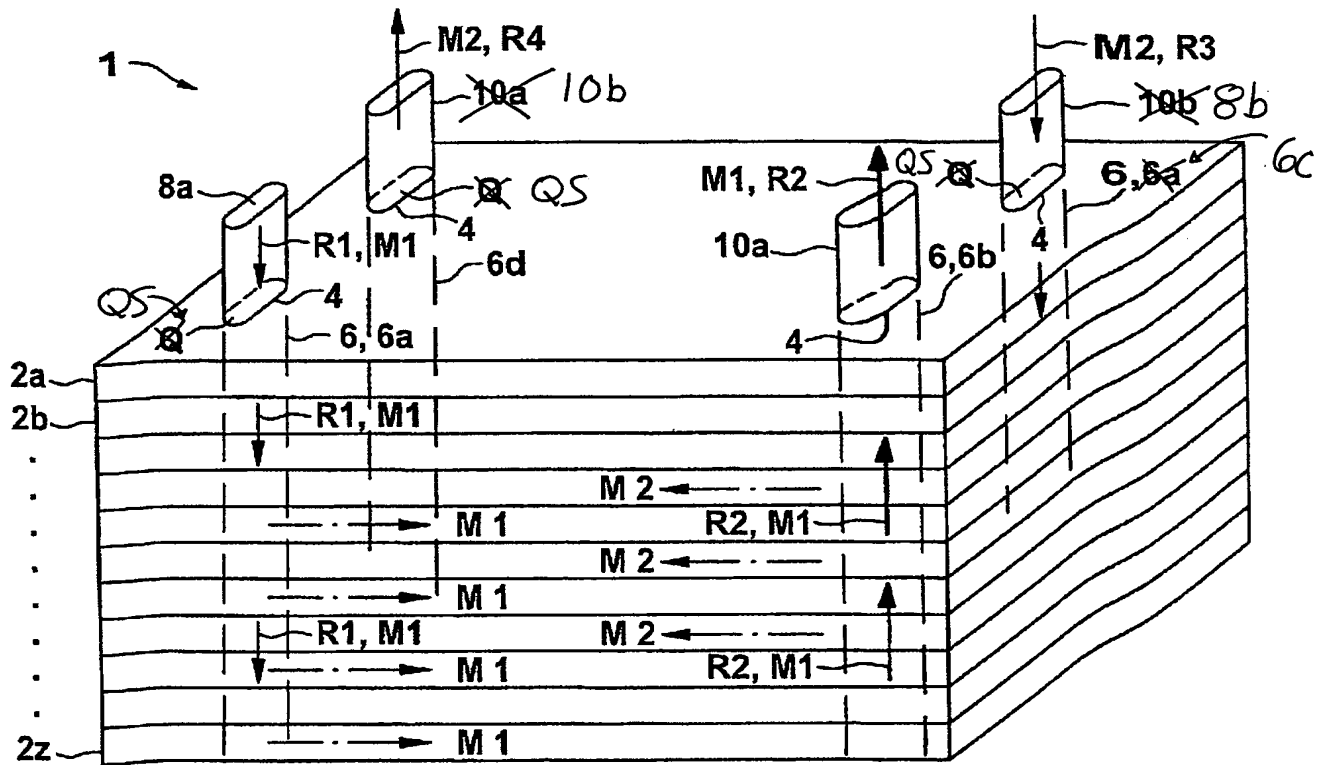
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Title: HEAT EXCHANGER AND PLATE USED IN A HEAT EXCHANGER

Inventor(s): Jens RICHTER

Appl. No.: 10/566,647

Fig. 1



Title: HEAT EXCHANGER AND PLATE USED IN A HEAT EXCHANGER

Inventor(s): Jens RICHTER

Appl. No.: 10/566,647

Fig. 2a

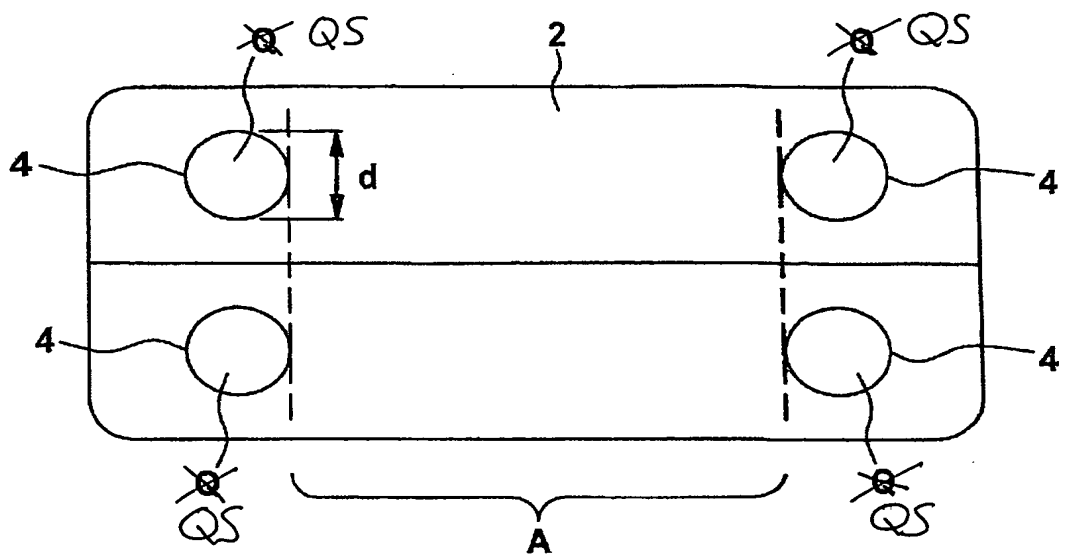


Fig. 2b

